

ABSTRACT OF THE DISCLOSURE

A semiconductor device includes a silicon substrate having a main surface, a memory cell formed on the main surface, and an interlayer insulating film formed on the main surface to cover the memory cell. The interlayer insulating film has a top surface and a peripheral edge. In the interlayer insulating film, grooves are formed to be placed between the memory cell and the peripheral edge, to extend in parallel with the main surface and to extend in a predetermined direction at a spacing with each other, and a groove is formed to diverge from the grooves and to extend in a direction different from the extending direction of the grooves. The semiconductor device further includes metal film filling the grooves. Thus, crack propagation from the peripheral edge to the inside of the interlayer insulating film can surely be prevented to provide a semiconductor device with high reliability.